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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/759,003	01/20/2004	Gerhard Osburg	A 91883	6846

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EXAMINER

MCMAHON, MARGUERITE J

ART UNIT	PAPER NUMBER
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3747

DATE MAILED: 07/06/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/759,003

Applicant(s)

OSBURG ET AL.

Examiner

Marguerite J. McMahon

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 5 is/are allowed.
- 6) ☒ Claim(s) 1-4 and 6-19 is/are rejected.
- 7) ☒ Claim(s) 20 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-4, 6-11, and 16-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kobayashi (6,418,891). Note an air passage 36, 46, a fuel passage 40, 50, a fuel nozzle 52 controlled by a needle 49 carried by throttle valve 48 disposed in both air and fuel passages. Kobayashi shows everything except the device being utilized in a portable handheld work apparatus such as a chain saw or cutoff machine, the fuel metering system including an electromagnetic valve, the fuel channel having an air inlet *upstream* of the fuel metering system, wherein 0% to 20% of the total combustion air is supplied through said fuel inlet to the engine.

It would have been obvious to one having ordinary skill in the art to utilize the device in a portable handheld work apparatus such as a chain saw or cutoff machine, since it has been held that making an old device portable or movable without producing any new and unexpected result involves only routine skill in the art. *In re Lindberg*, 93 USPQ 23 (CCPA 1952).

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In addition, it would have been obvious to one having ordinary skill in the art to utilize an electromagnetic valve in lieu of a mechanically operated valve since the two are art recognized equivalents, known for the same purpose.

Furthermore, it would have been obvious to one having ordinary skill in the art to locate the air inlet *upstream* of the fuel metering system rather than between parts of the fuel metering system, since it has been held that rearranging parts of an invention involves only routine skill in the art. Note that the fuel metering system includes throttle valve 48 and fuel nozzle 52, which are upstream of the air inlet 38 as well as reed check valve 39, which is downstream of the air inlet 38.

Finally, it would have been obvious to one having ordinary skill in the art to design the passages such that 0% to 20% of the total combustion air is supplied through said fuel inlet to the engine, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. *In re Aller*, 105 USPQ 233.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1 and 12-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Miyazaki et al (6,497,204). Note piston window 25. Miyazaki et al show everything except the device being utilized in a portable handheld work apparatus. It would have

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been obvious to one having ordinary skill in the art to utilize the device in a portable handheld work apparatus, since it has been held that making an old device portable or movable without producing any new and unexpected result involves only routine skill in the art. *In re Lindberg*, 93 USPQ 23 (CCPA 1952).

Allowable Subject Matter

Claim 5 is allowed.

Claim 20 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

Applicant's arguments filed 4/21/05 have been fully considered but they are not persuasive. Applicant argues that Kobayashi gives no suggestion that would lead one of ordinary skill to the idea of supplying the fuel in droplet form into the crankcase. The examiner finds this argument unconvincing, since the fuel and air are metered in the carburetor in order to provide the fuel and air in appropriate amounts depending on the speed and load of the engine and mixed together, such that the fuel is atomized, which makes the fuel into small droplets, which are then entrained with the air. It appears that the invention is doing the same thing. If it were not, there would be no control over the amount of air and fuel provided to the engine with respect to changing engine load and speed conditions.

Applicant further argues that the reference does not show a separate fuel inlet. "Instead, only a mixture inlet in the crankcase is provided. Also, there is no suggestion

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here as to how the fuel inlet could be arranged so as to be temperature noncritical and an insulating plate thereby avoided." This is unconvincing because the invention also shows a mixture inlet in the crankcase. Note claim 18, which cites that "fuel is supplied to the crankcase with air as a carrier medium." See also page 3, lines 21-25 of the specification, which also states that the "fuel channel has an inlet for air as a carrier medium for the fuel with the inlet being upstream of the fuel metering system. The air, which flows through the fuel channel, ensures that the fuel reaches the crankcase from the fuel opening through the fuel inlet." As far as there being no suggestion here as to how the fuel inlet could be arranged so as to be temperature noncritical and an insulating plate thereby avoided, there is nothing about this in the claims. Applicant argues that the invention does not utilize a carburetor, but this is only mentioned in newly added claim 20. The examiner is perplexed as to how the fuel and air are metered if no carburetor or fuel injector are utilized. Perhaps the invention itself functions as a carburetor, but the claims do not specify any function of this sort.

Applicant argues that the preparation of the air/fuel mixture takes place first in the crankcase of the engine. This is confusing because, as mentioned above, there must be some means of controlling the amount of fuel and air provided to the crankcase, and the use of the word "preparation" does not indicate anything very meaningful in this context. In addition, Applicant argues that the fuel metering system of the invention supplies the fuel in droplet form, which is not ignitable. The examiner cannot reconcile this statement with the citation in claim 18 and the citation in the specification mentioned above, which state that the fuel is supplied to the crankcase with air as a carrier medium.

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In that form, the fuel would surely be ignitable. However, since this is not included in the claims, it is moot.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Marguerite J. McMahon whose telephone number is 703-308-1956. The examiner can normally be reached on flex.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Yuen Henry can be reached on 703-308-1946. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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MARGUERITE MCMAHON
PRIMARY EXAMINER